Chapter B4: Regulatory Flexibility Analysis

Introduction

The Regulatory Flexibility Act (RFA) requires EPA to consider the economic impact a proposed rule would have on small entities. The RFA requires an agency to prepare a regulatory flexibility analysis for any notice-and-comment rule it promulgates, unless the Agency certifies that the rule "will not, if promulgated, have a significant economic impact on a substantial number of small entities" (The Regulatory Flexibility Act, 5 U.S.C. § 605(b)).

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For the purposes of assessing the impacts of the Proposed Section 316(b) Phase II Existing Facilities Rule on small entities, EPA has defined a small entity as: (1) a small business according to the Small Business Administration (SBA) size standards; (2) a small governmental jurisdiction that is a government of a city, county, town, school district, or special district with a population of less than 50,000; or (3) a small organization that is a not-for-profit enterprise that is independently owned and operated and is not dominant in its field. The SBA defines small businesses based on Standard Industrial Classification (SIC) codes and size standards expressed by the number of employees, annual receipts, or total electric output (13 CFR §121.20). The thresholds used in this analysis are four-digit SIC codes at the domestic parent entity-level.[1]

To evaluate the potential impact of this rule on small entities, EPA identified the domestic parent entity of each in-scope Phase II facility and determined its size. EPA used a "sales test" to evaluate the potential severity of economic impact on electric generators owned by small entities. The test calculates annualized post-tax compliance cost as a percentage of total sales revenues and uses a threshold of three percent to identify facilities that would be significantly impacted as a result of the proposed Phase II rule.

EPA's analysis showed that the proposed Phase II rule would not have a significant economic impact on a substantial number of small entities (SISNOSE). This finding is based on: (1) the limited absolute number of small entities expected to incur compliance costs; (2) the low percentage of all small entities in the entire electric generating industry expected to incur compliance costs; and (3) the insignificant magnitude of compliance costs as a percentage of sales revenues.

[1] The North American Industry Classification System (NAICS) replaced the Standard Industrial Classification (SIC) System as of October 1, 2000. The data sources EPA used to identify the parent entities of the facilities subject to this rule did not provide NAICS codes at the time of this analysis.

B4-1 Number of In-Scope Facilities Owned by Small Entities

EPA's 2000 Section 316(b) Industry Survey identified 539 generating facilities expected to meet the in-scope requirements of the Proposed Section 316(b) Phase II Existing Facilities Rule. As described in previous chapters of this document, these 539 facilities represent 550 facilities in the industry.[2] It is impossible, however, to determine the parent entity of extrapolated facilities. The remainder of this parent size analysis therefore discusses research done for the 539 surveyed facilities only. Later steps of this RFA analysis extrapolate the small entity findings to the industry level.

The small entity determination for in-scope facilities was conducted in two steps:

- Determine the domestic parent entity of the 539 in-scope facilities.
- Determine the size of the entities owning the 539 facilities.

B4-1.1 Identification of Domestic Parent Entities

Each of the 539 Phase II facilities belongs to one of the following seven types of domestic parent entity: private, federal, state, municipality, municipal marketing authority, political subdivision, or rural electric cooperative. In order to determine the domestic parent entity for each of the 539 facilities, EPA used publicly available data from the Department of Energy's (DOE) Energy Information Administration, 1999 Forms 860A and 860B. Information from the Section 316(b) Industry Survey was also used for facilities owned by nonutilities. Due to the recent changes in the electric generating industry, EPA used the Electric Power Monthly, a publication by the EIA, to identify in-scope facilities that have been sold to nonutilities and their new owners. As of the January 2002 Electric Power Monthly publication, EPA identified 112 facilities that had been sold to a nonutility since 1999. Of these 112 facilities, 105 were previously owned by a private utility, four were owned by a rural electric cooperative, two were owned by a political subdivision, and one was owned by a municipality. For facilities that have not been sold to a nonutility and that are not owned by a private entity, EPA assumed that the owner presented in the 1999 Forms EIA-860A and EIA-860B is the facility's domestic parent entity. For all other facilities, EPA conducted additional research to determine the domestic parent entity.

For facilities owned by a private entity, the immediate utility or nonutility owner is not necessarily the domestic parent firm. Many privately-owned utilities and nonutilities are owned by holding companies. A holding company is defined by the U.S. Census Bureau as being "primarily engaged in holding the securities of (or equity interests in) companies and enterprises for the purpose of owning a controlling interest or influencing the management decisions of these firms" (U.S. DOC, 2002). EPA used publicly available data and the Dun and Bradstreet (D&B) database to determine the domestic parent entity for all facilities either owned by a private entity or sold since 1999. The following four publicly available data sources were primarily used: the Security and Exchange Commission's (SEC) *FreeEdgar* database, the *Hoover's Online* website, Wright Investors' Service, and ZapData, an internet service of iMarket Inc. EPA determined that 131 unique entities own the 539 in-scope facilities.

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[2] EPA applied sample weights to the 539 facilities to account for non-sampled facilities and facilities that did not respond to the survey. For more information on EPA's 2000 Section 316(b) Industry Survey, please refer to the Information Collection Request (U.S. EPA, 1999a).

B4-1.2 Size Determination of Domestic Parent Entities

The thresholds used by EPA to determine if a domestic parent entity is small depend on the entity type. Therefore, EPA used multiple data sources to determine the entity sizes. The entity size thresholds and data sources EPA used are:

- For ***private*** entities (including utilities and nonutilities), the small entity size is defined based on the parent entity's SIC code and the related size standard set by the Small Business Administration (SBA). The SBA standards are based on employment, sales revenue, or total electric output (in megawatt hours (MWh)), by four-digit SIC code. EPA used publicly available data sources, including the SEC's *FreeEdgar* database, the *Hoover's Online* website, Wright Investors' Service, and iMarket's ZapData, to obtain the information necessary to determine the entity size. Table B4-1 presents the unique Phase II firm-level SIC codes and the corresponding SBA size standards that were used to determine the size of privately-owned entities.

- All ***federal and state*** governments are assumed to be large for the purpose of the RFA analysis (U.S. EPA, 1999).

- ***Municipalities, municipal marketing authorities, and political subdivisions*** are considered public sector entities. Public sector entities are defined as small if they serve a population of less than 50,000. Population data for these entities was obtained from the U.S. Census Bureau, Population Estimates Program.

- The SBA threshold for SIC 4911 (4 million MWh of total electric output) was used for the size determination of ***rural electric cooperatives***. The size determination was based on 1999 Form EIA-861 data.

If the specific size standard information was not available for any of the 131 entities, EPA used the 4 million MWh total electric output size standard to determine the entity size.

Table B4-1: Unique Phase II Non-Government Entity SIC Codes and SBA Size Standards

SIC Code	SIC Description	SBA Size Standard
1311	Crude Petroleum and Natural Gas	500 Employees
3312	Steel Works, Blast Furnaces (Including Coke Ovens), and Rolling Mills	1,000 Employees
4911	Electric Services	4 million MWh
4924	Natural Gas Distribution	500 Employees
4931	Electric and Other Services Combined	$5.0 Million
4932	Gas and Other Services Combined	$5.0 Million
4939	Combination Utilities, NEC	$5.0 Million
4953	Refuse Systems	$10.0 Million
6512	Operators of Nonresidential Buildings	$5.0 Million
8711	Engineering Services	$6.0 Million

Source: U.S. SBA, 2000.

Based on these size thresholds, EPA determined that 26 out of the 131 unique entities owning the 539 in-scope facilities are small entities. In addition to the 26 entities EPA identified as small, two entities were of an unknown size. EPA assumed these two entities to be small. Therefore, out of the 131 unique entities, 28 were determined by EPA to be small. Nineteen of the 28 small entities are municipalities, six are rural electric cooperatives, two are municipal marketing authorities, and one is a political subdivision. None of the private entities owning in-scope facilities were found to be small entities. Table B4-2 presents the distribution of the unique entities by entity type and size.

Table B4-2: Phase II Unique Entities (by Entity Type and Size)

Entity Type	Small Entity Size Standard	Entity Size			Total
		Large	Small	Unknown	
Private	SIC Specific	70	-	-	70
Federal	Large	1	-	-	1
State	Large	4	-	-	4
Municipality	Population of 50,000	16	19	-	35
Municipal Marketing Authority	Population of 50,000	-	-	2	2
Political Subdivision	Population of 50,000	3	1	-	4
Rural Electric Cooperative	4 million MWh	9	6	-	15
Total		**103**	**26**	**2**	**131**

Source: U.S. EPA analysis, 2002.

The distribution of the weighted in-scope facilities by their owner's type and size is displayed in Table B4-3. No small entity owns more than one in-scope facility; therefore, the 28 small entities own 28 in-scope facilities.

Table B4-3: Phase II Facilities (by Entity Type and Size)

Entity Type	Small Entity Size Standard	Entity Size		Total
		Large	Small	
Private	SIC Specific	446	-	446
Federal	Large	13	-	13
State	Large	7	-	7
Municipality	Population of 50,000	29	19	48
Municipal Marketing Authority	Population of 50,000	-	2	2
Political Subdivision	Population of 50,000	7	1	8
Rural Electric Cooperatives	4 million MWh	19	6	25
Total [a]		**521**	**28**	**550**

[a] Individual numbers may not add up to total due to independent rounding.

Source: U.S. EPA analysis, 2002.

B4-2 PERCENT OF SMALL ENTITIES REGULATED

In order to assess the impact of the proposed Phase II rule on the electric generating industry universe, EPA compared the number of in-scope small entities to the number of small entities in the entire electric generating industry. As discussed above, EPA identified 28 small entities (26 small and 2 unknown) subject to the proposed Phase II rule. Since only facilities with design intake flows of 50 MGD or more are subject to the proposed rule, the low number of small entities owning in-scope facilities is not unexpected. EPA identified 2,160 small entities within the entire electric power industry from the methods discussed below. Overall, only a small percentage of all small entities in the entire electric power industry, 1.3 percent, is subject to the proposed Phase II rule.

Based on Form EIA-861, 3,315 unique utilities operated in the United States in 1999.[3] It was not feasible to conduct the same research for all 3,315 utilities that was done for the 131 entities owning in-scope facilities (i.e., determining the holding companies and their SIC code and size standard information for private entities, and the population size for public sector entities). EPA therefore determined the industry-wide number of small entities based on the electricity sales threshold of 4 million MWh, using the 1999 Form EIA-861. However, EPA's analysis of the 131 entities that own in-scope facilities showed that the small entity determination based on the 4 million MWh threshold is not always the same as that based on the SIC code or population thresholds. EPA therefore made the following adjustments to the industry-wide numbers of small private entities, and municipalities:

- ***Private entities:*** EPA identified five privately-owned in-scope utilities that would qualify as small entities based on the 4 million MWh total electric output threshold. However, EPA's holding company research showed that all five small utilities would be considered large at the holding company level. EPA therefore assumed that industry-wide, all privately-owned utilities are large entities.

- ***Municipalities:*** EPA's research of entities owning in-scope facilities showed that 33 municipalities, municipal marketing authorities, and political subdivisions would be small based on the 4 million MWH size standard. Of these 33 entities, however, 39.4 percent, or 13 would be considered large when using the population threshold. EPA therefore reduced the number of small entity municipalities, municipal marketing authorities, and subdivisions within Form EIA-861 by a factor of 39.4 percent.

[3] It should be noted that the total number of small entities in the industry used in this analysis is based on utilities only. Information on the entity size of nonutilities is not readily available. The total number of small entities in the industry may therefore be understated, and, as a result, the percentage of small entities subject to the proposed Phase II rule may be overstated.

Table B4-4 presents the adjusted industry-wide number of small entities, the number of small entities that own in-scope facilities, and the percent of all small entities that is subject to the proposed Phase II rule.

Table B4-4: Number of Small Entities (Industry Total and Entities with In-Scope Facilities)

Type of Entity	Total Number of Small Entities	Number of Small Entities with In-Scope Facilities	Percent of Small Entities Subject to the Proposed Phase II Rule
Municipality	1,110	19	1.7%
Municipal Marketing Authority	13	2	15.4%
Political Subdivision	63	1	1.6%
Power Marketers	97	0	0.0%
Rural Electric Cooperatives	877	6	0.7%
All Firm Types	**2,160**	**28**	**1.3%**

Source: U.S. DOE, 1999c; U.S. EPA, 2000; D&B Database,2002.

B4-3 Sales Test for Small Entities

The final step in the RFA analysis consists of analyzing the cost-to-revenue ratio of each small entity subject to this proposed rule (also referred to as the "sales test"). The analysis is based on the ratio of estimated annualized post-tax compliance costs to annual revenues of the entity. EPA used a threshold of three percent to determine entities that would experience a significant economic impact as a result of the proposed Phase II regulation.

None of the 28 facilities EPA determined to be owned by a small entity has more than one owner. Also, none of the 28 small entities owns more than one in-scope facility. Therefore, no small entity is expected to incur compliance costs for more than one facility under the proposed rule.

The estimated annualized post-tax compliance costs include all technology costs, operation and maintenance costs, and permitting costs associated with the proposed Phase II rule. A detailed summary of how these costs were developed is presented in *Chapter B1: Summary of Compliance Costs*. For the 28 small entities, EPA calculated the average revenues over a three year period (1996 through 1998), using data from Form EIA-861.

The overall annualized compliance costs that facilities owned by small entities are estimated to incur represent between 0.1 and 5.3 percent of the entities' annual sales revenues. Table B4-5 presents the distribution of the entities' cost-to-revenue ratios by small entity type. Of the 28 small entities, two would incur compliance costs of greater than three percent of revenues. Nine entities would incur compliance costs of between one and three percent of revenues, while the remaining 17 entities would incur compliance costs of less than one percent of revenues.

Table B4-5: Impact Ratio Ranges by Small Entity Type					
Type of Entity	**Impact Ratio Ranges**	**0-1%**	**1-3%**	**>3%**	**Total**
Municipality	0.4 to 5.3%	9	8	2	19
Municipal Marketing Authority	0.1 to 0.1%	2	0	0	2
Political Subdivision	1.2 to 1.2%	0	1	0	1
Rural Electric Cooperative	0.2 to 0.5%	6	0	0	6
Total	**0.1 to 5.3%**	**17**	**9**	**2**	**28**

Source: U.S. EPA analysis, 2002.

EPA has determined that, overall, the impacts faced by small entities as a result of the proposed Phase II rule are very low. Of the 28 entities owning in-scope facilities, only 2, approximately seven percent, would incur compliance costs of greater than three percent of revenues. Moreover, these two entities represent only 1.5 percent of all 131 entities owning in-scope facilities.

B4-4 Summary

Under the Proposed section 316(b) Phase II Existing Facilities Rule, only 28 of 550 in-scope facilities would be owned by a small entity. The absolute number of small entities potentially subject to this regulation, 28, is low. Additionally, only a small percentage, 1.3 percent, of all small entities in the electric power industry is subject to this rule. Finally, the costs incurred by the 28 small entities are low representing between 0.1 and 5.3 percent of the entities' annual sales revenue. EPA therefore finds that this proposed rule would not have a significant economic impact on a substantial number of small entities (SISNOSE).

The RFA analysis in support of this proposed Phase II rule is summarized in Table B4-6.

Table B4-6: Summary of RFA Analysis				
Type of Entity	**Total Number of Small Entities**	**Number of Small Entities with In-scope facilities**	**Percent of Small Entities In-Scope of Rule**	**Annual Compliance Costs/ Annual Sales Revenue**
Municipality	1,110	19	1.7%	0.4 to 5.3%
Municipal Marketing Authority	13	2	15.4%	0.1 to 0.1%
Political Subdivision	63	1	1.6%	1.2 to 1.2%
Power Marketers	97	0	0.0%	n/a
Rural Electric Cooperative	877	6	0.7%	0.2 to 0.5%
Total	**2,160**	**28**	**1.3%**	**0.1 to 5.3%**

Source: U.S. EPA analysis, 2002.

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